INDEX

Page

Abbe, Cleveland, Jr., referred to ... 306
Abyssinia, Consul Skinner's mission to ... 165
Adams, Cyrus G., referred to ... 308
Adams, George I.; Zinc and lead deposits of northern Arkansas ... 459
Abruzzi, Duke of, referred to ... 388
Adirondacks, Forest fires in the, in 1903 ... 224
Africa, Methods of exploration in ... 408
—, Peculiar features of geography of Central ... 448
Agriculture in Japan; U. S. Consul Bellows ... 223
— in United States ... 263
Alabama claims referred to ... 4
Alaska, Abbreviation for ... 335
—, Coal of ... 268
—, Frank Leslie's expedition to ... 326
—, Geography of ... 213
—, Glaciers of ... 449
—, Harriman publications on ... 449, 506
—, Map of ... 188, 236
—, Relief map of ... 491
—, Telegraphs of ... 357, 490
—, Wealth of ... 499
Alaskan Boundary Decision, Map showing the ... 5
— — —; John W. Foster ... 1
— — Dispute, Review of book on ... 296
— — Tribunal, Argument of the United States ... 190
— — —, Case of the United States ... 190
— — —, Counter-case of the United States ... 190
Albatross, Noted achievements of the ... 197
Albatross pictures ... 495, 496, 497
Algué, José, Book on Cyclones of the Far East ... 459
Allen, Lieutenant, referred to ... 214
Amazon, Exploration of the valley of the ... 395
American Alpine Club ... 74, 207
America, Earliest map bearing the name of ... 50
American clippers, Famous ... 168
American deserts ... 153
Amery, Dr, cited in discussion of the geographical pivot of history ... 335
Andrée referred to ... 389
Antarctic Continent, The ... 185
— —, Some recent English statements about the ... 266
Appalachian Mountain Club ... 74, 297
Arabia and along the Persian Gulf, Travels in ... 139
Arctic and Antarctic, A comparative view of the ... 460
Arctic discoveries (*see* Peary, Abruzzi, Ziegler) ... 402
Arctowski, Henry; Geographic Congress paper ... 306–307
Argentina, Prosperity in ... 453
Arid regions of the world, Map showing the ... 17
Asia, Place names in eastern ... 136
Atlas, Handy World ... 270
Aulick, Midshipman, referred to ... 392
Austin, Goodwin, referred to ... 294
Austin, O. P., Book on steps in the expansion of our territory by ... 337
—, cited on our new immigration ... 231
—, cited on the greatness of the United States ... 454
—, referred to ... 113, 309, 452
—; Relations of commerce to geography ... 503
Ashburton, Lord, referred to ... 2
Austro-Hungarian life in town and country, Review of ... 271

Baber, Zonia; Geographic Congress paper ... 310
Baird, Spencer F., referred to ... 192
Baker, Marcus, cited on an undiscovered island off the northern coast of Alaska ... 260
—, portrait of ... 41
—, Tributes to ... 40, 83
Balch, Edwin Swift, referred to ... 220, 394
—; Some recent English statements about the Antarctic ... 266
Ball, R.; Geographic Congress paper ... 309
Ballou, Count de Montessus de; Geographic Congress paper ... 307
Baltic-Black Sea Canal ... 237

Page

Bamboo, The wonderful ... 222
Barbour, Mary; Book on Nebraska geological survey ... 190
Barrett, John, cited on Isthmus of Panama ... 428
— — — Argentina ... 453
Bateson, Mary, Book on mediæval England by ... 135
Bauer, L. A., referred to ... 234
—, Tribute to Marcus Baker by ... 41
—; Geographic Congress paper ... 308
Baschin, O.; Geographic Congress paper ... 310
Bealby, J. T., Sven Hedin's Central Asia and Tibet translated by ... 83
Beale, Lieutenant Edward, referred to ... 398
Becker, George F.; Experiments on schistosity and slaty cleavage ... 459
Beet sugar industry, The ... 80
Bell, Dr Alexander Graham, referred to ... 176, 225
Bellows, U. S. Consul; Agriculture in Japan ... 373
Bennett, James Gordon, referred to ... 264, 404
Bentley, W. A., Work on snow crystals by ... 30
Berry, Lieutenant R. W., referred to ... 404
Bigelow, Frank H.; The scientific work of Mount Weather Meteorological Research Observatory ... 441
—; Geographic Congress paper ... 306
Biological stations ... 207
Björnstjern, Bjornson, referred to ... 370
Blache, Paul Vidal de la; Geographic Congress paper ... 307
Blair, Emma H., Book on Philippine Islands by ... 90
135, 190, 270, 339, 371, 431
Blondell, Georges; Geographic Congress paper ... 310
Bohio, The great dam at ... 88
Boll weevil *versus* red ant ... 262
Boyle, James, cited on cotton for England ... 39
Bowers, Hon. George M., referred to ... 193
Braine, Commander D. L., referred to ... 404
Bray, William L., report by ... 371
Brice, Capt. John J., referred to ... 193
Bridges, Colossal natural, of Utah ... 307
Brigham, Albert Perry, Book on geographic influences in American History by ... 87
—; Geography and history of the United States ... 460
—; Geographic Congress paper ... 310
Brooke, Lieutenant, referred to ... 188
Brooks, Alfred H.; The Geography of Alaska ... 213
—, referred to ... 188, 236
—; Geographic Congress paper ... 309
Brownell, H. L., Book on heart of Japan by ... 55
Bruce, Captain, referred to ... 220, 394
Bryant, H. G.; Geographic Congress paper ... 309
—, referred to ... 419
Buckingham, B. H., referred to ... 402
Bullock-Workman explorations, The ... 294
Bureau of Fisheries, Work of ... 191, 494
Bureau of Forestry ... 224, 450
Bureau of Statistics ... 79, 83, 113, 135, 267, 452
Burnell, Captain G. C., referred to ... 337
Burr, William H.; The Republic of Panama ... 57
—, referred to ... 89

Calderon, Alfredo Alvarez; Peru—its resources, development, and future ... 311
Campbell, M. R.; Geographic Congress paper ... 306
Cannon, Dr W. A., referred to ... 153
Cannon, Speaker, referred to ... 234
Carnegie Institution, The ... 233
Carney, F.; Geographic Congress paper ... 310
Carpenter's Geographical Reader, Review of ... 270
Cartographical Association ... 418
Celqué, S. J., Bulletin by ... 371
Central Asia and Tibet, Sven Hedin's book on ... 83
Census Bureau, Atlas by ... 50
—, Estimate of population by ... 232
Chagres River, The ... 428
Chalikiopoulos, L.; Geographic Congress paper ... 308
Chamberlain, James F.; Book on field and laboratory exercises in physical geography ... 190

Page

Chamberlain, Thomas C., and Rollin D. Salisbury; Book on geology ... 84
Chapman, Robert H., Book review by ... 84
Chester, C. M.; Geographic Congress paper ... 310
—, referred to ... 236, 383, 392, 411
—; Some early geographers of the United States ... 392
Chevalier, A.; Geographic Congress paper ... 310
Chile, Astronomical expedition to ... 396
China: John W. Foster ... 493
—, Antiquity and accomplishments of ... 464, 465
—, Helplessness of ... 466
—, Hatred of foreigners by ... 467
—, Spoliation of ... 471, 474
—, Transformation of ... 475
—, Yellow peril ... 477
— in 1904, Commercial (*see* Manchuria) ... 188, 452
Chinese official, Letters from a ... 190
Chisholm, J. C., and C. H. Leete, Longman's School Geography by ... 135
Christen, T.; Geographic Congress paper ... 308
Civil Service Commission referred to ... 274
Claparede, A. De; Geographic Congress paper ... 309, 420
Clark, J. W., referred to ... 326
Clement, Ernest W., Handbook of modern Japan by ... 189
Climbs and explorations in the Canadian Rockies, Review of ... 83
Clouds, Formation and pictures of ... 285, 287
Coast and Geodetic Survey ... 255, 295
Coleman, A. P.; Geographic Congress paper ... 309
Collie, J. Norman, and Hugh E. M. Stutfield; Book on climbs and explorations in the Canadian Rockies ... 84
Collins, F. W., referred to ... 398
Collinson, H. M. S., cited on journal of H. M. S. *Enterprise* ... 257, 260
Collier, Arthur J., Report on tin deposits of the York region by ... 459
— — — coal of Arctic Alaska ... 499
Colorado, New detail maps of Grand Canyon of ... 400
Commercial Geography, Redway's book on ... 87
— —, Chisholm's book on ... 271
Consular reports ... 272
Conway, Sir Martin, cited on production of gold in Peru ... 318
Cook, O. F., referred to ... 462
Cook, Frederick A.; A comparative view of the Arctic and Antarctic ... 309, 460
—; Geographic Congress paper ... 309
Cooke, Charles E., referred to ... 268
Cordier, M. Henri; Geographic Congress paper ... 420
Cora, Guido; Geographic Congress paper ... 310
Cornell University, Summer school of ... 234
Cotton for England ... 39
Cotton goods in Manchuria ... 122
— — — Nigeria ... 442
Coville, F. V., referred to ... 153, 185
Crosby expedition to Tibet, The ... 229
Crosby, Oscar T.; Geographic Congress paper ... 309
Crossman, A. F., referred to ... 398
Crowell, J. F.; Geographic Congress paper ... 309
Culebra Cut, The ... 70, 454
Curtis, George C.; Geographic Congress paper ... 309
Curzon, Lord, referred to ... 84

Dale, J. B., referred to ... 395
Dall, Wm. H.; Address in memory of Marcus Baker ... 41
Das, Sarat Chandra; Book on Lhasa and Central Tibet ... 190
Date palms in United States ... 371
Davis, Wm. M.; The bearing of physiography on the Suess theory ... 430
—, Description of Hudson River by ... 423
—, Geographic Congress paper ... 306–310
—, referred to ... 392
Davidson, George; Alaskan boundary ... 190, 290
—, Book on glaciers of Alaska by ... 371
—, Geographic Congress paper ... 307
Dawson, Thomas C., Book on South American republics by ... 434
Dawson, W. B.; Geographic Congress paper ... 307

Page

Day, Murray S., referred to ... 401
Dead Sea, United States expedition to ... 395
Decimal system ... 417
Deep-sea maps ... 416
De Haven, Edward J., referred to ... 403
De Lesseps, Plan of ... 67, 392
De Long referred to ... 257, 404
Densmore, Frank, referred to ... 215
Desert, Causes of a ... 160
—, Chihuahua ... 163
—, Mohave ... 163
—, Painted ... 163
—, Ralston ... 163
—, Salton ... 163
—, Snake River ... 162
—, Sonora ... 163
—, Sonora-Nevada ... 162
—, Tularosa, referred to ... 153
—, What is a? ... 159
Deserts, American ... 157, 160
—, Intensity of ... 163
De Windt, Harry, Book by, From Paris to New York by land ... 237
Dittmer, R.; Geographic Congress paper ... 310
Dodge, Richard E., Book on elementary geography by ... 238
Dorsey, George A.; Book on Indians of the Southwest ... 50
— — Arapahoe sun dance ... 238
Drift ice ... 417
Drudl, Oskar; Geographic Congress paper ... 308
Drygalski, Captain von, referred to ... 186, 224, 367, 394
—; Geographic Congress paper ... 308
Dryer, C. R.; Geographic Congress paper ... 310
Du Chaillu, Paul, referred to ... 387
Dyar, G. W., Cited on natural bridges of Utah ... 367

Early western travels, Books of ... 80, 237, 270
Ebeling, M.; Geographic Congress paper ... 307
Earthquake investigations ... 339, 371, 416, 459
Edwards, Clarence R.; Governing the Philippine Islands ... 274
—; The work of the Bureau of Insular Affairs ... 239
Emerson, Benjamin K., Book on geology of western Massachusetts by ... 89
Emmons, S. F., referred to ... 234
—, Year book by ... 188
Equivalent projection, Map of the world on an ... 265
Erodi, Prof. Bela; Geographic Congress paper ... 420
Evermann, Barton Warren; Bureau of Fisheries ... 191

Fairbanks, H. W.; Geographic Congress paper ... 310
Fairchild, David G.; Travels in Arabia and along the Persian Gulf ... 139
—, cited on Japanese bamboos ... 221
Far East, Books on ... 128, 452
—. *See* Manchuria, Japan, Korea.
—, Series of papers on ... 461
Filipino youths in the United States, Education of. 276
Fifth International Geographic Congress, referred to ... 405
Figuerin, Melecio, Philippine coins made by ... 279
Fish culture, A division of ... 207
Fischer, H.; Geographic Congress paper ... 310
Fisher, W. K., cited on Laysan Island albatrosses ... 494
Fisheries, Bureau of, Present organization of the ... 194
— of Japan, The; Hugh M. Smith ... 362
—, Pacific salmon ... 209
—, Value of the United States ... 211
Fitz-Gerald, Work in Peru by ... 321
Flamingo nests, Remarkable photograph of ... 83
Flanhault, C.; Geographic Congress paper ... 308
Floods of 1903 in Mississippi water-shed ... 295
Flynn, Benjamin H., Geological Survey report by. 459
Food fishes, Inquiry respecting ... 194
Forecasting the weather ... 285
Forest fires in the Adirondacks ... 224
Forest management, Government aid in ... 450
Fossil egg ... 499
Foster, John W.; The Alaskan Boundary Tribunal. 1
—; China ... 463

Page

Foulk, Geo. C., referred to..... 402
Fractional scale on maps..... 417
Fram, Use of, asked by the Duke of Orleans..... 455
Frank Leslie's Alaskan expedition..... 326
Franklin, Sir John, expedition of..... 403
—, Search for..... 403
Freshfield, Douglas W., Book on Round Kangchenjunga by 56
Friederichsen, M.; Geographic Congress paper..... 309
Fuller, Myron L.; Hydrology of eastern United States, 1903..... 459
—; Geographic Congress paper..... 309
Funke, A.; Geographic Congress paper..... 309

Gaillaud, Frederic Romanet du; Geographic Congress paper..... 310
Gannett, Henry, Gazetteers by..... 364
—; Geographic Congress paper..... 309
—; Mother maps of..... 502
—; Philippine Islands and their people..... 91
—; Philippine Weather Service..... 77
—; Place names in Eastern Asia..... 136
—, referred to..... 78, 234
—, Statistical atlas of the United States by..... 51
Garnett, Lucy M. J.; Book on Turkish life in town and country..... 135
Garofals, F. P.; Geographic Congress paper..... 310
Garriott, E. B., referred to..... 133
Gas, oil, and coal supply of the United States, The.. 186
Gaudry, Albert, referred to..... 89
Gauthoil, C. P.; Geographic Congress paper..... 310
Gauss, Voyage of, referred to..... 221
Gautier, E. T.; Geographic Congress paper..... 309
Gazetteers of the United States..... 369
Gems of the East; Review of..... 336
Genthe, Martha K.; Geographic Congress paper. 310, 502
Geographen-Kalender, Review of..... 296
Geographic articles in periodicals..... 238, 271, 296, 506
Geographic Congress, Eighth International, ... 74, 297, 373, 419
—, Abstracts of papers submitted to..... 430, 460, 502
—, Arrangements for..... 74, 297
—, Committees of..... 76
—, Compte Rendu of..... 76, 303, 381, 382
— Delegates to..... 302
—, Excursions by..... 74, 382
—, General review of..... 419
—, Greetings of, to the world..... 411
—, Membership of..... 75, 298, 301
—, Officers of..... 76, 304
—, Organization of..... 304
—, Papers submitted to..... 75, 302, 306, 381
—, Program of..... 299, 377
—, Publications of..... 75
—, Resolutions passed by..... 415
—, Sessions of..... 74
—, Subjects discussed by..... 75
Geographic influences in American history, Review of..... 87
— names, Decisions of the U. S. Board on.... 74, 272, 501
— — of Philippines..... 78
— —, Rules for..... 416
Geographical pivot of history, The..... 331
Geographic literature..... 52, 87, 136, 189, 237, 269, 295, 336, 371, 432, 456, 504
Geographic textbooks: King's Elementary Geography..... 53
— —, Redway's Commercial Geography..... 87
— —, Chisholm's Commercial Geography..... 271
Geographical Society, American (New York)... 74, 297
— —, entertains Eighth Geographic Congress..... 423
Geographic Society, National, invites Eighth International Geographic Congress..... 74, 297
— —, Addresses before, published..... 15, 40, 43, 57, 91, 139, 191, 229, 239, 273, 311, 341, 463
— —, host of Eighth Geographic Congress..... 419, 420
— —, Meetings of..... 56, 90, 136, 407, 461
— —, Map of Alaska published by..... 188, 191
— — — — Manchuria and Korea published by... 99, 128
— —, Map of the world published by..... 500
— —, New home of..... 176
—, officers of..... 176

Page

Geographical Society of Baltimore referred to... 74, 297
Geographical Society of California referred to.. 74, 297
Geographical Society of Chicago referred to..... 74, 297
— —, entertains Eighth Geographic Congress..... 423
Geographical Society of Philadelphia referred to.. 74, 297
— — entertains Eighth Geographic Congress..... 420
Geographical Society of Pacific referred to..... 74, 297
Geography, Books on commercial..... 87, 271
Geography, Elementary, Book on, by Charles F. King..... 53
Geological Survey, U. S., Twenty-fifth anniversary of..... 324
—, Twenty-five years work of..... 365
—, Publications by..... 188, 371, 459
—, Flag of..... 135
—, Map by..... 188
— referred to..... 91
—, Topographic sheets by..... 188, 268
—, Economic and mining year book by..... 188
—, Gazetteers by..... 369
Gerland, G.; Geographic Congress paper..... 307
Gerrare, Wirt, Book on Greater Russia by..... 189
Gibbons, A. St H., Book on Africa by..... 432
—; Methods of exploration in Africa..... 408
Gibbs, G. S., referred to..... 337
Gilbert, G. K., Address by..... 420, 423
—, Geographic Congress paper 307, 502
— referred to 176, 234, 269, 449, 502
Gill, Theodore, referred to..... 192
Gilliss, James, referred to..... 396
Gilman, D. C., Geographic Congress paper..... 309
Girdling the globe 236, 411
Girty, G. H., United States Geological Bulletin by. 371
Goode, J. Paul, Address by..... 424
—; Geographic Congress paper 310
Goode, G. Brown, referred to..... 192
Goodell, E. B.; Report on polluted waters..... 500
Grand Canyon, Survey of..... 460
Grandidier, Guillaume, Address by..... 424
—, Geographic Congress paper..... 308
Grant, President, referred to..... 192
Greely, A. W., Work in Alaska by..... 357, 490
—, Work in Philippines by..... 494
Greer, Commander James A., referred to..... 404
Griffin, A. P. C., Book by..... 100
Grinnell, Henry, referred to..... 403
Groghan, George, referred to..... 237
Grosvenor, Gilbert H., Book reviews by.. ... 52, 83, 134, 189, 237, 269, 295, 337, 432, 449, 456, 502
—; Eighth International Geographic Congress..... 419
—, Geographic notes.... 39, 50, 73, 80, 83, 112, 127, 133, 135, 165, 176, 185, 212, 219, 224, 231, 262, 264, 285, 292, 331, 365, 367, 369, 372, 427, 433, 446, 450, 452, 490, 494, 498
—; Inoculating the ground..... 225
—; Lessons from Japan..... 221
—; Manchuria and Korea..... 128
—; Snow crystals..... 30
—; The Crosby expedition to Tibet..... 229
Gulliver, F. P., Geographic Congress paper..... 306

Hague, James D.; Search for the lost island of the Pacific..... 425
—; The doubtful island of the Pacific..... 478
Hale, H. C., referred to..... 128
Hall, C. W.; Geographic Congress paper..... 306, 310
Hall, Francis, Expedition of..... 403
Hall, William L., Bureau of Forestry report by..... 371
Hamberg, Alex.; Geographic Congress paper..... 307
Hamilton, Augus, Book on Korea by..... 189
—, Modern Japan, review of..... 189
Hamy, E. T.; Voyages du Ch. Alex Lasseur dans L'Amerique du Nord..... 238
Harper, W. R., Address of, at Chicago..... 424
Harbin, Importance of..... 337
—, Industries in 121
Hartstene, Henry J., Expedition of..... 403
Hatfield, Chester, referred to..... 398
Harriman Alaska expedition, referred to..... 449
Harris, R. A.; Indications of land in the vicinity of the North Pole..... 255
—; Geographic Congress paper..... 307

Page

Harshberger, Prof. J. W.; Geographic Congress paper... 308
Harvard Travellers' Club... 74, 297
Hatcher, John B., death of... 500
Hay, John, Secretary of State, referred to... 2
Hayden, Edward Everett; Chronometer and time service of the United States Naval Observatory and the present status of standard time... 430
—, Congress resolution introduced by... 418
—; Geographic Congress paper... 309
Hayes, C. W., Yearbook of the Geological Survey by... 188
—, referred to... 234
Hayford, J. F.; Geographic Congress paper... 308
Head, Franklin H., Address by... 424
Hedin, Sven, Book on Central Asia and Tibet by... 83
—, referred to... 389
Heilprin, Angelo; Destruction of Pompeii as interpreted by the volcanic eruptions at Martinique... 431
—; Geographic Congress paper... 307
—, Tower of Pelée... 502
Henry, A. J.; Geographic Congress paper... 306
Herendeen, Edward P., cited on land in the vicinity of the North Pole... 260
Herrick, C. A.; Geographic Congress paper... 310
Herndon, William L., referred to... 395
Hill, Robert T.; Geographic Congress paper... 309
History, The geographical pivot of... 33
Hitchcock, A. S.; Controlling sand dunes in the United States and Europe... 43
Hitchcock, E. A., referred to... 234
Hitchcock, C. H.; Geographic Congress paper... 307
Hovey, E. O.; Geographic Congress paper... 307
Hubbard, G. D.; Geographic Congress paper... 310
Hubbard, Gardiner Greene, referred to... 176
Hubbard Memorial Hall, Opening of... 176
Hubbard, Mrs Gardiner Greene, Eighth International Geographic Congress received by... 383
—, Reception to National Geographic Society by... 176
Hubbard, Leonidas, Death of... 185
Hulbert, A. B.; Book on great American canals... 432
Humboldt, cited on orchids in South America... 316
—, referred to... 393
Hunter, William; Geographic Congress paper... 309

Ibsen, Heinrich, referred to... 370
Immigration not dangerous to the United States... 231
Indian baskets... 188
Indians of the Northwest, Game and fur-bearing animals and their influence on the... 431
— of the Painted Desert region, Review of... 87
— — — Southwest... 59
Inoculating the ground... 225
International Geographic Congress, Eighth. *See* Geographic Congress.
Irrigation institutions, Mead's book on... 90
— of the West... 15, 166
Irving, J. D.; Report on economic resources of the northern Black Hills... 459
Island, A doubtful, of the Pacific... 478
— — Search for... 480
Italian emigration... 455

Jackson, Sheldon, Report on introduction of reindeer into Alaska by... 371
James, George Wharton; Book on Indians of the Painted Desert... 56
Japan, Agriculture in... 83
—, and Korea, Chart of... 112
—, Books on... 55, 128, 135, 189, 270, 339, 459
—, Cotton spinners in... 446
—, Earthquakes in... 452
—, Fisheries of... 362
—, Foreign commerce of, since the restoration... 446
— in 1904, Commercial... 219, 452
—, Lessons from... 221
—, Pearl and turtle farms in... 427
—, Perry's expedition to... 400
—, Recent seismological investigations in... 452
—, Rice and food supply in... 447
—, Surveys in... 400

Page

Japan, Some facts about... 445
— today, Review of... 270
—, Wealth of coal in... 446
Jefferson, M. S. A.; Geographic Congress paper. 306, 310
Johns Hopkins University, Essays published by... 446
Johnson, E. R.; Geographic Congress paper... 309
Johnson, H. A., Notes by... 268
Johnston, H. H.; Geographic Congress paper... 310
Jones, E. C.; Geographic Congress paper... 310

Kan, C. M.; Geographic Congress paper... 309
Kane, E. K., referred to... 403
Kano, City of... 434
—, Emir's dungeon at... 437
Kassner, K.; Geographic Congress paper... 306
Kawaguchi, Ekai, cited on experiences in Tibet... 202
Keenan, John, cited on land in the vicinity of the North Pole... 261
Kellogg, Royal S., Report on forest planting by... 459
Kelly, William A., Suggestion by... 335
Kelvin, Lord, Geographic Congress paper... 307
Kemp, J. F.; Geographic Congress paper... 306
Kempton, H. B., Bureau of Forestry report by... 371
Kennelly, B. J.; Geographic Congress paper... 310
Kerr, Mark B.; Geographic Congress paper... 306
Kikuchi, Dairoku, cited on earthquakes in Japan... 452
King, Charles F., Elementary geography by... 53
Kingdom of Siam, Review of Carter's book on... 458
Klotz, Otto, cited on circling the globe... 236
Knipowitsch, Prof.; Geographic Congress paper... 307
Knudsen, M.; Geographic Congress paper... 309
Korea, Austin's monograph on... 79, 188, 452
—, Facts about... 79
—, Hamilton's book on... 189
—, Map of... 90, 112
Korean currency... 79
— coasts and Siberia, Observations on... 402
Koresligethy, Professor de; Geographic Congress paper... 307
Kozloff, P. K.; Geographic Congress paper... 309
Kummell, H. B.; Geographic Congress paper... 309

Labrador expedition of Leonidas Hubbard... 185
Lake Clark, a little known Alaskan lake; Wilfred H. Osgood... 326
Lallemand, G.; Geographic Congress paper... 307
Landor, A. Henry Savage; Book on gems of the East... 336
Landers, J. C.; A new harbor in Porto Rico... 295
Land of earthquakes, The... 450
Lane, E. C., cited on mining in Peru... 317, 318
Lathrop, Barbour, referred to... 139, 221
Le Conte, Joseph, Memorial to... 188
Lee, Willis T.; Underground waters of Gila Valley, Arizona... 459
Leete, C. H., School geography by... 135
Lehnert, E. M.; Geographic Congress paper... 310
Leighton, Marshall Ora; Passaic floods of 1903... 459
Lesasseur, E.; Geographic Congress paper... 310
Levaut, U. S. Sloop, Disappearance of... 478
Lindenkohl, A.; Geographic Congress paper... 307
Lindgren, Waldemar; A geological reconnaissance across the Bitter Root range... 459
Littlehales, G. W.; Geographic Congress paper... 308
Louisiana Purchase Exposition, Philippine exhibit at... 283
Lugard, Sir Frederick; The new English province of Northern Nigeria... 434

MacDougal, cited on Desert Botanical Laboratory of the Carnegie Institution... 153
McAdie, Alexander G., Book on climatology of California by... 190
McClure; The discoverer of the northwest passage. 257
McDonald, Marshall, referred to... 193
McGee, W J, referred to... 29, 176, 392
—; Geographic Congress paper... 308
McKinley, President, referred to... 247, 274, 282
McMurry, Chas. A.; Book on type studies from United States geography... 459

Page
Mackinder, H. J., cited on the geographical pivot of history ... 331
Mackaroff, Vice-Admiral, Death of ... 212
Magoon, Judge, referred to ... 247
Manchuria, Agricultural wealth of ... 504
—, American *versus* Russian trade in ... 121
—, Area of, compared to United States ... 127, 128
—, Conditions in, August, 1904 ... 429
—, Cotton goods in ... 122
—, Disposal of land in ... 117
—, Education in ... 504
—, Hosie's book on ... 504
—, Lumbering in ... 131
—; Millet production ... 504
—, Minerals of ... 506
—, Natural wealth of ... 262
—, Notes on ... 261, 452
—, Relief map ... 129
—, Russian administration of ... 113
—, Transportation in ... 114
—, War map of ... 90
—, Wheat area of ... 128
—, Whigham's book on ... 337
Map of the world on an equivalent projection ... 265
— —, Waldseemüller's ... 50
— —, Published by National Geographic Society ... 502
Maps on scale of 1 : 1,000,000 ... 405, 416
Marcuse, Adolf; Geographic Congress paper ... 308
Markham, Sir Clements R., cited on the Antarctic Expedition ... 266
—, cited on Peru ... 312, 313
—, referred to ... 392
Mashut, C. F.; Geographic Congress paper ... 310
Marsh, M. C., referred to ... 205
Martel, E. A.; Geographic Congress paper ... 306
Martin, G. C.; Report on new Pacific coal field ... 268
Martinique, The destruction of Pompeii as interpreted by the volcanic eruptions of ... 431
Martonne, Emmanuel de; Geographic Congress paper ... 306
Mason, M. S.; Bulletin on volcanoes and seismic disturbances ... 371
Mason, Otis T., Monograph on aboriginal Indian baskets by ... 188
Matthes, Francois E.; Topographic methods used for the new detail map of the Grand Canyon of the Colorado ... 460
Mazamas ... 74, 297
Mead, Elwood, Book on irrigation institutions by ... 90
Meinardus, W.; Geographic Congress paper ... 360
Mello Carlos de, Les lois de la geographie by ... 371
Merriam, C. Hart, referred to ... 47, 450
Merrill, George P., Book on non-metallic minerals by ... 238
Meteorology of the sea, Time saved by a knowledge of the ... 169
Meteorological observatory, A new ... 268
Mexico, Southwestern, A winter expedition into ... 341
Mexican belt of calms at Panama Canal ... 174
Meyers Historisch Geographischer Kalender, 1904, review of ... 89
Mill, H. R.; Geographic Congress paper ... 309
Miller, Henry B.; Lumbering in Manchuria ... 132
—; Notes on Manchuria ... 261
—; Russian development of Manchuria ... 113
Mississippi, Geology of western ... 84
Mitchell, William; Building the Alaskan telegraph system ... 357
Mondell, F. M., views on reclamation of the West ... 29
Morton, Paul, referred to ... 411
Mount Weather Observatory ... 38, 442
Mounier, Marcel, cited on Peruvian hospitality ... 312
Monoghan, Consul, abstract of Witte's speech on Russia ... 455
Moore, George T., Discoverer of nitrogen-fixing bacteria ... 228
Moore, H. F., referred to ... 204
Moore, Willis L., cited on climate ... 452
—, referred to ... 133
—. *See* Weather Bureau.
Murphy, Edw. Charles, report on destructive floods in the United States in 1903 ... 459
Murphy, Edw. Charles, Hydrographical Manual of the U. S. Geological Survey by ... 459
Murray, Sir John, referred to ... 389
—, Geographic Congress paper ... 307

Nansen, Fridtjof; Book on the Norwegian North Polar expedition ... 431
—, referred to ... 257, 370
Nelson, E. W.; A winter expedition into southwestern Mexico ... 341
Nevada, Development of ... 166
—, Sulphur mine in ... 498
Newell, F. H.; The reclamation of the West ... 15
—, referred to ... 234
—, Report on the Reclamation Service by ... 459
New York State, Commercial importance of ... 429
Nicholas, Francis C., Book on Panama by ... 52
—, Geographic Congress paper ... 310
Nigeria, New English province of Northern ... 434
Niles, W. H.; Geographic Congress paper ... 306
Nordenskjold referred to ... 220, 387
—; Geographic Congress paper ... 309
Norton, W. H.; Geographic Congress paper ... 310
North Pacific expedition, The United States ... 399
North Pole, Some indications of land in the vicinity of the ... 255
—. *See* Abruzzi, Peary, Ziegler.
Notzli, M. E., cited on the Amazon provinces ... 314
Norwegian publication, A notable ... 370

Oberhummer, Eugen; Geographic Congress paper ... 310, 420
Ocean highways for sailing vessels ... 174
Oldham, Dr Vule, Geographic Congress paper ... 420
Oliphant, F. H., Report on natural gas, coal, and oil supply of the United States ... 186
—, Report on petroleum by ... 459
Ollone, Capitaine d'; Book on de la Côte d'Ivoire au Soudan et a la Guinée by ... 432
Olsen, O. T., Geographic Congress paper ... 307
Orleans, Duke of, Request for the use of the *Fram* by ... 455
Ortman, A., Geographic Congress paper ... 308
Orton, Prof., cited on Peru ... 314
Osborn, Sherard, cited on land in vicinity of the North Pole ... 258, 260
Osgood, Wilfred H.; Lake Clark, a little known Alaskan lake ... 326

Packard, A. S.; Geographic Congress paper ... 308
Pacific coal field, A new ... 268
Pacific, A doubtful island of ... 478
Page, James; The sailing ship and the Panama Canal ... 167
Page, T. J., referred to ... 396
Pailhode, J. De Ray; Geographic Congress paper ... 360
Panama Canal, Cost of the ... 73
—, Mexican belt of calms at ... 174
—, Sailing ships and the ... 167
—, Tables showing the distance from, to other places ... 73
—, Winds at Atlantic end of ... 170
—, Work for the ... 454
Panama, Climate of ... 63
—, Exploration and surveys of ... 397
—, Nicholas book on ... 53
—, Relation of, to the rest of the world ... 61
—, Report on health of ... 428
—, Sanitary conditions in ... 71
Panama Railroad, The ... 61
Panama Republic ... 57
—, War Department report on ... 296
—, — — map of ... 135
Pan-American Railway, Report of Charles M. Pepper on ... 232
Paris to New York by land ... 237
Parker, H. A.; Geographic Congress paper ... 360
Parker, E. W., Report on coal for 1903 by ... 186
Pauncefote, Lord, referred to ... 1
Peary Arctic Club ... 74, 297

Page

Peary, Robert E., Address at St Louis by. 424
—, Address before the Eighth International Geographic Congress by..... 387
—; Geographic Congress paper..... 419
—, Map showing the discoveries of..... 135
—, Plans of, for 1905-'06..... 265, 425
—; President Eighth International Geographic Congress..... 384
—, Reception to Eighth International Geographic Congress by 386, 420
—, referred to..... 388, 404
Penck, Albrecht, Plans of, for a map of the world.. 405
—; Geographic Congress paper..... 420, 304
—, Geographic Congress Resolutions introduced by..... 415, 418
—, referred to..... 423, 424
Penfield, F. C., Book on present day Egypt by..... 87
Pennsylvania, A remarkable water-shed in... 267
Pepper, Charles M., Address by..... 383
—, Report on Pan-American Railway by..... 232
Perry's expedition to Japan referred to..... 400
Perry, Joseph H., Book on geology of Worcester, Mass., by..... 89
Persian Gulf, Along the, and travels in Arabia..... 139
Peru—its resources, development, and future..... 311
Peters, W. J., Report on trip across Alaska by..... 267
Pfeil, Joachim von Graf; Geographic Congress paper..... 310
Pilsbury, H. A.; Geographic Congress paper..... 308
Philippine accounting and auditing system..... 251
— currency..... 110, 279
— exhibit at the Louisiana Purchase Exposition... 283
— friar bonds.. 282
— land purchase..... 282
— printing plant.. 284
— tariff..... 252
Philippine Islands and their people..... 91
— —, Bibliography of books on 190
— —, Bulletin of census of..... 371
— —, Blair and Robertson's series on 90, 135, 190 270, 339, 371, 431
— —, Education of. 276
— —, Government of 107, 239, 273
— — industries..... 107
— —, Landor's book on..... 336
— —, Languages of.. 104
— —, Means of travel in 108
— —, People of..... 91, 103
— —, Present peace in..... 111
— —, Relief map of..... 493
— —, Report on the, for 1903..... 371
— —, Statistics, commerce, and immigration of..... 283
— —, Telegraphs of..... 494
— —, Will they pay?..... 112
— —, Winds and typhoons in the 100
Phillips, P. Lee, List of books on the Philippine Islands by..... 190
Physiography, Bearing of, upon Suess' theories..... 430
Pickering, William H., Book on the Moon by 55
Pillsbury, J. E., referred to..... 399
Platt, M. I.; Geographic Congress paper 310
Polar explorations (*see* Arctics, Peary, Ziegler)..... 416
Pompeii, Destruction of, interpreted by the volcanic eruptions of Martinique..... 431
Population, Our present..... 232
Porto Rico, A new harbor in 295
—, Relief map of..... 493
Post, D. F., referred to 237
Powell Survey, Catalogue and index of the..... 338
Powell's classification of the Pacific mountain system..... 217
Prentiss cited on the great Polar current..... 260
Prowse, G. R. F.; Geographic Congress paper..... 310

Rabot, Charles A.; A notable Norwegian publication..... 370
—; Geographic Congress paper..... 308
Raimondi, cited on minerals of Peru..... 317
Rathbun, Richard, referred to..... 200
Ray, P. H., cited on Polar expedition to Point Barrow..... 258
Red ant *versus* the boll weevil, The..... 262

Page

Redway, Jacques, Book on commercial geography by..... 87
Reid, H. F.; Geographic Congress paper..... 307
Rein, J. J.; Geographic Congress paper..... 307
Reports, Recent government..... 371, 459
Rice, A. Hamilton; Geographic Congress paper.... 309
Rice, W. N.; Geographic Congress paper..... 306
Richardson, cited on the Polar regions 257
Richthofen, Baron, referred to..... 392
—; Geographic Congress paper..... 420
Ries, Heinrich, U. S. Geological Survey report by..... 371
Ringgold, Cadwallader, referred to..... 399
Rio de la Plata, Exploration of..... 396
Rizer, H. C., referred to. 234
Robertson, Books on Philippine Islands by..... 90, 135, 190, 270, 339, 371, 431
Rodgers, John, referred to..... 400, 402
Romance of the Colorado River, The, Review of.... 295
Roosevelt, President, referred to..... 392
Root, Elihu, referred to..... 9, 244, 247
Rotch, A. Lawrence; A project for the exploration of the atmosphere over the tropical oceans 430
Ruckteschell, W. von; Report by on canal connecting the Baltic and Black Seas..... 236
Rudolph, E.; Geographic Congress papers..... 307
Russia, Gerrare's book on..... 237
— in 1904, Commercial. 452, 455
Russian advance, Beveridge's book on..... 134
Russian commercial advantages..... 113
Russian development of Manchuria..... 113
Russian lumber 131
Russell, Israel C., Book on North America by..... 371
—, referred to..... 89
—; Timberlines..... 47
Russo-Chinese Bank in Manchuria..... 117

Safford, W. E., referred to..... 89
Sakhalin, Hawe's book on 457
Salisbury, Rollin D., Address by..... 424
—, Book on geology by..... 190
Sampson, A.; Geographic Congress paper..... 308
Sanger, J. P., referred to... 371
Sapper, K.; Geographic Congress paper..... 309
Schanz, A. B., referred to..... 326, 327, 331
Scherer, James A. B., Book on Japan by..... 238
Schmidt, A.; Geographic Congress paper..... 307
Schlagintweit, Max. Statement about Chogo Lungma glacier..... 294
Schmeckebier, L. F., Catalogue of Hayden surveys by..... 338
Schrader, F. C., Report on first journey across Alaska by..... 267
Schwatka, Frederick A., referred to..... 214
Scott, J. E., Book on In Famine Land by..... 190
Scott, Captain, referred to..... 220, 266, 394
Selfridge, T. O., referred to..... 396, 398
Semple, E. C.; Geographic Congress paper..... 308, 310
Siberia, Commercial, Report on..... 452
—, Explorations in..... 402
—, Russian advance in 134
Sievers, Wilhelm; Geographic Congress paper..... 309
Sierra Club..... 74, 297
Signal Corps, Work of, in Alaska..... 357, 490
— — — Philippines..... 493, 494
Silkworm culture..... 267
Simmonds, cited on sugar cane in Peru..... 315
Simpson, Thomas, cited on discoveries of the north coast of North America 258, 259
Shufeldt, R. W., referred to..... 398
Skeat, W. W., referred to..... 89
Skinner, Robert P.; Mission to Abyssinia.. 165
Slacum's voyage referred to..... 393
Smith, Donaldson A.; Geographic Congress paper. 308
Smith, Hugh M.; The fisheries of Japan..... 362
—, Address by..... 462
Smith, George Otis, referred to 234
Smith, J. R.; Geographic Congress paper..... 310
Smithsonian Institution, Report of the, for 1902.... 89
Snow crystals..... 30
Snyder, W. H.; Geographic Congress paper 310
South American Republics, Dawson's book on 458

Page

Spencer, Arthur C.; Copper deposits of the Encampment District of Wyoming ... 459
Sponge culture, Experiments in ... 205
Stanley, Henry M., Death of ... 264, 409
Standard time ... 418, 430
Statistical Atlas of the United States, Gannett's ... 50
Starr, F.; Geographic Congress paper ... 308
Statistics of population in countries having no census ... 417
Stead, W. T., Book on Japan by ... 459
Stevenson, E. L., referred to ... 50
—; Geographic Congress paper ... 310
Stone, A. J.; Geographic Congress paper ... 308
Stoney, George M., referred to ... 215
Stupert, R. F.; Geographic Congress paper ... 306
Stufield, Hugh E. M.; Book on Canadian Rockies ... 84
Suess' theories, The bearing of physiography upon ... 430
Sutton, J. R.; Geographic Congress paper ... 306
Sugar beets ... 80, 81, 82
Sulphur mine in Nevada ... 498
Sundbarg, Gustav; Book on Sweden by ... 432
Suter, H. M., cited on forest fires in the Adirondacks ... 224
Sverdrup, Expedition of referred to ... 388
Swingle, Walter T., Address by ... 462
—, Report on date palms by ... 371
Symonds, Rear Admiral, referred to ... 395

Tacoma, Cruise of U. S. S., in search of lost island ... 486
Taft Commission referred to ... 247, 274, 282
Tanner, Z. L., referred to ... 195
Tarr, Ralph S., New physical geography by ... 135
—; Geographic Congress paper ... 306
—; Gorges and waterfalls of New York ... 502
Taylor, H. C.; Geographic Congress paper ... 310
Temperature and moisture of the air ... 285
Termination land ... 220
Thompson, J. P., Book on around the world by ... 459
Thorndike, Townsend W.; Game and fur-bearing animals and their influence on the Indian of the Northwest ... 431
—; Geographic Congress paper ... 310
Thoulet, J.; Geographic Congress paper ... 307
Thwaites, Reuben Gold, Books on early western travels by ... 89, 237, 371, 459
—, Book on Rocky Mountain exploration by ... 238
Tibet, Sven Hedin's book on ... 83
—, Notes on ... 292
—, The Crosby expedition to ... 229
Timberlines ... 47
Tittmann, O. H., referred to ... 255
Titto, General, Death of referred to ... 418
Todd, C. C., referred to ... 396
Todd, J. E., Report on water resources of the James River by ... 459
Toll, Baron Edward, referred to ... 266, 387
Tropical oceans, A project for the exploration of the atmosphere over the ... 430
Turkish life in town and country, Review of ... 271
Turner, George, referred to ... 7
Turtle Mountain, Rock slide of ... 372

Utah, Colossal natural bridges of ... 367
United States, Consular service of ... 135
— —, Driest spot in ... 163
— —, Expansion of ... 337
— —, Fisheries of ... 211
— —, Foreign commerce of ... 167, 186
— —, Gas, oil, and coal of ... 186
— —, Gazetteers of ... 364
— —, Geography and history in ... 46
— —, Immigration of ... 231, 429
— —, Internal commerce of ... 454
— —, Italian immigration ... 455
— —, Map of ... 233
— —, Population of, in 1903 ... 302
— —, Ports of ... 267
— —, Sailing tonnage ... 167
— —, Size of families of ... 51

Page

United States, Statistical atlas of ... 50
Uttermost East, Hawe's book on ... 457

Vancouver referred to ... 6
Vaux, G., Jr.; Geographic Congress paper ... 307
Verner, Samuel P.; Some peculiar features of Central African geography ... 448
—; Geographic Congress paper ... 308
Vodka, Production of ... 118
Virginia natural bridge referred to ... 367

Wadleigh, George H., Expedition of ... 404
Walcott, Charles D., referred to ... 234, 420
—, Portrait of ... 235
Wallace, A. Dillon, referred to ... 185
Wallace, J. F., cited on the problem of the Chagres River ... 428
Walker, John G., referred to ... 397
Walpole, Frederick A., Death of ... 267
Ward, R. De C.; Geographic Congress paper ... 306
Washington, Places to see in ... 379, 380
Watts, Ethelbert, Consular report by ... 237
Whitbeck, R. H.; Geographic Congress paper ... 310
Weather Bureau (U. S.), Bulletin on Weather Proverbs by ... 133
— —, Cloud pictures from ... 286
— —, Educational work of the ... 39
— —, Forecasting ... 37, 285
— —, Meteorological observatory of ... 422
— —, Philippine service of ... 78
— —, River and flood service of the ... 38, 295
— —, Snow crystal pictures from ... 30
Weather forecasting ... 285
Webster-Ashburton treaty, The, referred to ... 3
Webster's International Dictionary of the English language, Review of ... 269
Wenlersse, G., Book on La Japan d'aujourd'hui by ... 135
West, Reclamation of the, The ... 15
Wheeler, Arthur G.; Geographic Congress papers ... 306
Wheeler survey, Catalogue and index of ... 338
Wheelock, Irene Grosvenor, Book on Birds of California by ... 189
Whigham, H. J., Book on Manchuria and Korea by ... 337
Wilkes, The end of the Antarctic Continent discovered by the American ... 185, 220, 394
Wilson, W. P.; Geographic Congress paper ... 310
Wilson, James, Cited on the United States Weather Bureau ... 37
Wilson, H. M., Book on Irrigation in India by ... 56
Wilson, A. W. G.; Geographic Congress paper ... 306
Willcocks, Sir W.; Geographic Congress paper ... 310
Winter India, Review of ... 456
Wirt, Gerrare, Book on Greater Russia by ... 237
Witte, E.; Geographic Congress paper ... 307
Wokas, a primitive Indian food ... 185
World, Chart of the ... 500
—, National Geographic Society map of ... 500
—, Waldseemüller's chart of ... 50
Workman, Fannie Bullock; Geographic Congress paper ... 309
—, referred to ... 294
Workman, William Hunter; Geographic Congress paper ... 309
—, referred to ... 294
Worcester, Mass., Geology of ... 89
Wright, Carroll D., Resolution introduced by ... 418
Wright, Luke E., referred to ... 274

Younghusband, Expedition of, referred to ... 231, 389

Zeitschrift der Gesellschaft für Erdkundundzu Berlin, cited ... 220
Zeigler Polar expedition referred to ... 267, 388, 427
Zon, Raphael, Report on the chestnut in Southern Maryland by ... 459

THE

NATIONAL GEOGRAPHIC MAGAZINE

AN ILLUSTRATED MONTHLY

EDITOR: GILBERT H. GROSVENOR

ASSOCIATE EDITORS

A. W. GREELY
W J McGEE
C. HART MERRIAM
WILLIS L. MOORE
O. H. TITTMANN
O. P. AUSTIN
DAVID T. DAY
IDA M. TARBELL
CARL LOUISE GARRISON

VOL. XV—YEAR 1904

PUBLISHED BY THE NATIONAL GEOGRAPHIC SOCIETY
HUBBARD MEMORIAL HALL
WASHINGTON, D. C.

NATIONAL GEOGRAPHIC SOCIETY

THE NATIONAL GEOGRAPHIC SOCIETY was organized and incorporated under the laws of the District of Columbia January 27, 1888. The object of the Society is the increase and diffusion of geographic knowledge. The Society accomplishes its object:

1. By encouraging worthy plans for exploration and by helping such projects when its resources permit. 2. By publishing an illustrated monthly Magazine and many large maps. 3. By an annual series of thirty addresses at the National Capital, most of which are published in the Society's Magazine. 4. By the maintenance of a library.

MEMBERSHIP

Is not confined to professional geographers, but includes many who are interested in the advance of geographic knowledge. Its present membership, at the close of the seventeenth year of its history, is 3,100, of whom 1,100 are resident in Washington and 2,000 distributed throughout every State in the Union and in many foreign countries. Candidates for admission in the Society must be proposed by members. The membership fee is $2 per annum, with no entrance fee. Life membership fee is $50. All members receive free of charge the Magazine and maps published by the Society.

OFFICERS

The affairs of the Society are conducted by a Board of twenty-four managers elected by the Society. Eight members of the Board are elected at each annual meeting of the Society. At least six of the Board must be non-residents of Washington. The present officers are

W J McGEE, *President.* — G. K. GILBERT, *Vice-President.*
JOHN JOY EDSON, *Treasurer.* — O. P. AUSTIN, *Secretary.*
ELIZA R. SCIDMORE, *Foreign Secretary.*
GILBERT H. GROSVENOR, *Editor.*

BOARD OF MANAGERS

1902–1904	1903–1905	1904–1906
ALEXANDER GRAHAM BELL	CHARLES J. BELL	HENRY F. BLOUNT
DAVID T. DAY	GEORGE DAVIDSON	C. M. CHESTER
A. W. GREELY	WM. M. DAVIS	F. V. COLVILLE
ANGELO HEILPRIN	JOHN JOY EDSON	D. C. GILMAN
RUSSELL HINMAN	G. K. GILBERT	S. H. KAUFFMANN
W J McGEE	A. J. HENRY	WILLIS L. MOORE
GIFFORD PINCHOT	O. P. AUSTIN	ISRAEL C. RUSSELL
HENRY GANNETT	C. HART MERRIAM	R. D. SALISBURY

The NATIONAL GEOGRAPHIC MAGAZINE is sent free of charge to all members of the National Geographic Society.

CONTENTS

Page

The Alaskan Boundary Tribunal, with map (12 x 12 inches); by JOHN W. FOSTER, LL. D., formerly Secretary of State 1
The Decision of the Alaskan Boundary Tribunal 12
The Reclamation of the West; by F. H. NEWELL, Chief Engineer of the Reclamation Service 15
Snow Crystals 30
The U. S. Weather Bureau; by Hon. JAMES WILSON, Secretary of Agriculture 37
Marcus Baker; by Dr WM. H. DALL 40
Controlling Sand Dunes in the United States; by A. S. HITCHCOCK 43
Timberlines; by Professor ISRAEL C. RUSSELL 47
Statistical Atlas of the United States 50
Geographic Literature 52
"Around the Caribbean and Across Panama" (Francis C. Nicholas) 52
"Elementary Geography" (Charles F. King) 53
"The Heart of Japan" (H. L. Brownell) 55
"The Moon" (Wm. H. Pickering) 55
"New Conceptions of Science" (Carl Snyder) 55
"Climbs and Explorations in the Canadian Rockies" (H. E. N. Stutfield and J. Norman Collie, F. R. S.) 55
"A Handbook of Modern Japan" (Ernest W. Clement) 55
"The Forest" (Steward Edward White) 55
"Handbook of Commercial Geography" (Geo. G. Chisholm) 55
"Present Day Egypt" (Frederic Courtland Penfield) 55
"The Russian Advance" (Albert J. Beveridge) 55
"Indians of the Painted Desert Region" (George Wharton James) 56
"Indians of the Southwest" (George A. Dorsey, Ph. D.) 56
"Round Kangchenjunga" (Douglas W. Freshfield) 56
"Irrigation in India" (H. M. Wilson) 56
National Geographic Society 56
The Republic of Panama; by Hon. WM. H. BURR, of Isthmian Canal Commission 57
Eighth International Geographic Congress, Washington, 1904 74
The Philippine Weather Service 77
Geographic Notes 79
Some Facts about Korea 79
The Beet Sugar Industry 80
In Tribute to Marcus Baker 83
Photograph of Flamingo Nests 83
Statement from Department of Commerce and Labor 83
Geographic Literature 83
"Central Asia" (Sven Hedin) 83
"Climbs and Explorations in the Canadian Rockies" (H. E. M. Stutfield and J. Norman Collie) 84
"Geographic Influences in American History" (A. P. Brigham) 87
"Indians of the Painted Desert Region" (George Wharton James) 87
"Commercial Geography" (J. W. Redway) 87
"Present Day Egypt" (F. C. Penfield) 87
"Meyers Historisch Geographischer Kalender" 89
"Report of the Smithsonian Institution, 1902" 89

Page

"Geology of Worcester, Mass." (J. H. Perry and B. K. Emerson) 89
"Early Western Travels" (R. G. Thwaites). 89
"Irrigation Institutions" (Elwood Mead) 90
"The Philippine Islands" 90
National Geographic Society 90
Map of Manchuria and Korea, 36 x 42 inches. .....
The Philippine Islands and their People; by HENRY GANNETT, Assistant Director Philippine Census 91
Russian Development of Manchuria; by Consul HENRY B. MILLER 113
Manchuria and Korea 128
Lumbering in Manchuria 131
Weather Proverbs 133
Geographic Literature 134
"The Russian Advance" (A. J. Beveridge) 134
Geographic Notes 135
U. S. Geological Survey Flag 135
Map of Republic of Panama 135
Map Showing Commander Peary's Recent Discoveries 135
Diplomatic and Consular Service of the United States 135
Geographic Literature 135
"The Philippine Islands" (Blair and Robertson) 135
"New Physical Geography" (Ralph S. Tarr) 135
"Longman's School Geography" (Chisholm and Leete) 135
"Turkish Life in Town and Country" (Lucy M. J. Garnett) 135
"Mediæval England" (Mary Bateson). 135
"La Japon d'aujourd'hui" (G. Wenlersse) 135
Place Names in Eastern Asia 136
National Geographic Society 136
Travels in Arabia and Along the Persian Gulf; by DAVID G. FAIRCHILD, of the Department of Agriculture 139
The American Deserts; by F. V. COVILLE, Botanist of the Department of Agriculture ... 153
Consul Skinner's Mission to Abyssinia 165
The Sailing Ship and the Panama Canal; by JAMES PAGE, of the Naval Hydrographic Office 167
The New Home of the National Geographic Society 176
Geographic Notes 185
Wokas 185
A Labrador Expedition 185
The Antarctic Continent 185
The Natural Gas, Oil, and Coal Supply of the United States 186
The Dealings of the United States with the Nations of Europe 186
Indian Baskets 188
The Mining Year Book of the U. S. Geological Survey 188
Commercial Korea in 1904 188
Commercial China in 1904 188
A Memorial to Professor Le Conte 188
Topographic Sheets Recently Published by the U. S. Geological Survey 188
Geographic Literature. 189
"Korea" (Angus Hamilton) 189
"A Handbook of Modern Japan" (E. W. Clement) 189
"Greater Russia" (Wirt Gerrare) 189

Page

"Birds of California" (Irene Grosvenor Wheelock) 189
"Steps in the Expansion of Our Territory" (Oscar P. Austin) 190
"In Famine Land" (J. E. Scott) 190
"Geology" (Thomas C. Chamberlin and Rollin D. Salisbury) 190
"Nebraska Geological Survey" (Erwin H. Barbour) 190
"A Journey to Lhasa and Central Tibet" (Sarat Chandra Das) 190
"Letters from a Chinese Official" 190
"Alaska" (edited by C. Hart Merriam) 190
"Field and Laboratory Exercises in Physical Geography" (James F. Chamberlain) .. 190
"Climatology of California" (Alexander G. McAdie) 190
"A List of Books on the Philippine Islands in the Library of Congress" (A. P. C. Griffin and P. Lee Phillips) 190
"Alaskan Boundary Tribunal" (The Case of the United States; The Countercase of the United States; Argument of the United States) 190
"The Philippine Islands, 1493–1898" (Blair and Robertson) 190
Reports of the United States Geological Survey 190
Reports of the Bureau of Statistics 190
Map of Alaska, 36 by 42 inches ..... Supplement
The Bureau of Fisheries—How the Rich Fisheries of the United States are Protected and New Fishing Grounds Discovered and Created; by Dr BARTON W. EVERMANN, of the Bureau of Fisheries 191
Note on Vice Admiral Makaroff 212
The Geography of Alaska; by ALFRED H. BROOKS, of the United States Geological Survey. 213
Termination Land—The Western End of the Antarctic Continent Discovered by the American, Wilkes; by EDWIN SWIFT BALCH 221
Lessons from Japan 221
Inoculating the Ground 225
The Crosby Expedition to Tibet 229
Geographic Notes 231
Is the New Immigration Dangerous to the Country 231
Our Present Population 232
Pan-American Railway 232
Map of the United States 233
The Carnegie Institution 233
Twenty-fifth Anniversary of the United States Geological Survey 234
Summer School of Geography and Geology at Cornell University 234
Girdling the Globe 236
Note on the Map of Alaska 236
Report on Construction of Canal Connecting the Black and Baltic Seas 236
Geographic Literature 237
"Greater Russia" (Wirt Gerrare) 237
"Early Western Travels, 1748–1846" (R. G. Thwaites) 237
"From Paris to New York by Land" (H. de Windt) 237
Articles from April Magazines 238
"Japan Today" (James A. B. Scherer, Ph. D.) 238
"The Non-metallic Minerals" (George P. Merrill) 238
"The Arapahoe Sun Dance; The Ceremony of the Offerings Lodge" (George A. Dorsey) 238
"Elementary Geography" (R. E. Dodge) 238
"Rocky Mountain Exploration" (R. G. Thwaites) 238
"Voyages du Ch. Alex Lesuer dans L'Amerique du Nord" (E. T. Hamy) 238

Page

The Work of the Bureau of Insular Affairs; by Col. CLARENCE R. EDWARDS, U. S. Army. 239
Some Indications of Land in the Vicinity of the North Pole; by R. A. HARRIS, U. S. Coast and Geodetic Survey 255
The Red Ant *versus* the Boll Weevil 262
Geographic Notes 264
Sir Henry M. Stanley 264
Map of the World on the Equivalent Projection 265
Peary's Plans for His Polar Expedition 265
Some Recent English Statements about the Antarctic 266
Search for Baron Toll 266
A Remarkable Watershed in Pennsylvania 267
Silk-Worm Culture 267
First Journey Across Alaska from Skagway to the Arctic Ocean 267
Frederick A. Walpole 268
A New Meteorological Observatory 268
A Map of St. Louis 268
Geographic Literature 269
"Webster's International Dictionary of the English Language" 269
"Carpenter's Geographical Reader; Australia" 270
"Handy World Atlas and Gazetteer" 270
"The Philippine Islands, 1492–1896," Vol. XII (Blair and Robertson) 270
"Six Mois Dans L'Himalaya, Le Karakomin, et L'Hindu-Kush" (J. J. Guillamond) 270
"Early Western Travels, 1748–1846," Vol. II 270
"Japan Today" (J. A. B. Sherer) 270
"Handbook of Commercial Geography" (G. C. Chisholm) 271
"Turkish Life in Town and Country" (L. M. T. Garnett) 271
"Austro-Hungarian Life in Town and Country" (F. H. E. Palmer) 271
Articles from May Magazines 272
Consular Reports 272
Decisions of U. S. Board on Geographic Names 272
Governing the Philippine Islands; by Colonel CLARENCE R. EDWARDS, U. S. Army 273
Forecasting the Weather 285
Notes on Tibet 292
The Bullock-Workman Explorations 294
A New Harbor in Porto Rico; by J. C. LANDERS 295
Geographic Literature 295
"The Romance of the Colorado River" (F. S. Dellenbaugh) 295
"Floods of the Spring of 1903 in the Mississippi Watershed" (H. C. Frankenfield) 295
"Geographen Kalendar, 1904–1905" (Hermann Haack) 296
"The Alaskan Boundary" (George Davidson) 296
"Notes on Panama" 296
Articles from June Magazines 296
Eighth International Geographic Congress 297
(General Announcement) 297
Headquarters 298
Program 299
Membership 301
Societies and Delegates 302
Compte Rendu 303
Organization 304
Titles of Papers Offered to the Congress 306

Page

Peru—Its Resources, Development, and Future; by ALFREDO ALVAREZ CALDERON, of the Peruvian Legation 311
Agriculture in Japan; by U. S. Consul General BELLOWS, Yokohama, Japan 323
Lake Clark, a Little Known Alaskan Lake; by WILFRED H. OSGOOD, of the U. S. Biological Survey 326
The Geographical Pivot of History 331
National Geographic Society 335
Geographic Literature 336
"The Gems of the East" (A. Savage Landor) 336
"Manchuria and Korea" (H. T. Whigham) 337
"Steps in the Expansion of Our Territory" (O. P. Austin) 337
"War Map of Manchuria and Korea" 338
"A Catalogue and Index of the Publications of the Hayden, King, Powell, and Wheeler Surveys" 338
"A New Water Route" 338
"Giacomo Constantino Beltram's Explorations in America" (Eugenia Masi) 339
"Le Japon" (G. Weulersse) 339
"Le Thibet" (F. Grenard) 339
"Le Maroc" (Eugenie Aubin) 339
"Dictionary of Altitudes in the Dominion of Canada" (James White) 339
"Contribution to the Theory of Glacial Motion" (T. C. Chamberlin) 339
"Beitrage zur Biographie und Morphologie der Alpen" (Hermann Reishauer aud Dr. Christian Marz) 339
"The Russo-Japanese War" 339
"Early Western Travels" (Reuben Gold Thwaites) 339
"The Philippine Islands" 339
"Le Cordillera de los Andes" (Luis Riso Patron) 339
"The Philippine Islands" (Blair and Robertson) 339
"The Upper Congo as a Waterway" (Rev. George Grenfell) 339
"Postglacial and Interglacial (?) Changes of Level at Cape Ann, Mass. (R. S. Tarr) 339
"Notes on the Geology of Southwestern Idaho and Southeastern Oregon" (Israel C. Russell) 339
"Monographs of the United States Geological Survey" 339
"Report of the Chief of the Bureau of Insular Affairs to the Secretary of War, 1903" 339
"Forest and Water" (Abbot Kinney) 339
"Birds of Laysan and the Leeward Islands, Hawaiian Group" (Walter K. Fisher) 339
A Winter Expedition in Southwestern Mexico; by E. W. NELSON, of the Biological Survey 341
Building the Alaskan Telegraph System; by Captain WILLIAM MITCHELL, U. S. A 347
The Fisheries of Japan; by HUGH M. SMITH, of the Bureau of Fisheries 362
What the U. S. Geological Survey has Done in Twenty-five Years 365
Colossal Natural Bridges of Utah 367
Gazetteers of the States 369
A Notable Norwegian Publication; by CHARLES RABOT 370
Geographic Literature 371
"Dodge's Elementary Geography" (Richard Elwood Dodge) 371
"Philippine Islands" (Blair and Robertson) 371
"The Philippine Islands" (Report of the Philippine Commission for 1903) 371
"Les Lois de la Geographie" (Carlos De Mello) 371
"Early Western Travels," 1748 to 1846 (Reuben Gold Thwaites) 371
"Introduction of Domestic Reindeer into Alaska" (Sheldon Jackson) 371

Page

"North America" (Israel C. Russell) ... 371
"Year Book of the U. S. Department of Agriculture" ... 371
"Glaciers of Alaska" (George Davidson) ... 371
Recent Government Reports ... 371
Program and List of Delegates and Members of the Eighth International Geographic Congress ... 373
Address by Commander Robert E. Peary, U. S. N., on the Assembling of the Congress in Washington, September 8, 1904 ... 387
Some Early Geographers of the United States; by Rear Admiral C. M. CHESTER, U. S. N. 392
Recent Progress in the Execution of a Map of the World on the Uniform Scale of 1 : 1,000,000 (Sixteen Miles to the Inch); by Dr. ALBRECHT PENCK ... 405
Methods of Exploration in Africa; by Major A. ST. H. GIBBONS ... 408
The Special Telegraphic Time Signal from the Naval Observatory in Honor of the Eighth International Geographic Congress ... 411
Resolutions Adopted by the Eighth International Geographic Congress ... 415
The Eighth International Geographic Congress ... 419
Geographic Notes ... 427
Pearl and Turtle Farms in Japan ... 427
The Ziegler Polar Expedition ... 427
The Chagres River ... 428
The Isthmus of Panama ... 428
The Commercial Importance of New York State ... 429
Conditions in Manchuria ... 429
Immigrants in 1903–1904 ... 429
Abstracts of Geographic Congress Papers ... 430
A Project for the Exploration of the Atmosphere Over the Tropical Oceans; by A. LAWRENCE ROTCH ... 430
The Bearing of Physiography upon Suess's Theories; by WM. M. DAVIS ... 430
The Chronometer and Time Service of the U. S. Naval Observatory and the Present Status of Standard Time; by Lieut. Comdr. EDWARD EVERETT HAYDEN, U. S. N. 430
The Destruction of Pompeii Interpreted by the Volcanic Eruptions in Martinique; by ANGELO HEILPRIN ... 431
Game and Fur-bearing Animals and Their Influence on the Indian of the Northwest; by TOWNSEND W. THORNDIKE, M. D. ... 431
Geographic Literature ... 432
"The Philippine Islands, 1493–1898," Vol. XVIII, 1617–1620 (Blair and Robertson) ... 432
"Great American Canals" (A. B. Hulbert) ... 432
"The South American Republics" (Thomas C. Dawson) ... 432
"Sweden—Its People and Its Industry" (Gustav Sundbarg) ... 432
"The Norwegian North Polar Expedition" (Fritjof Nansen) ... 432
"Africa from South to North through Morotseland" (Major A. St. H. Gibbons) ... 432
"Dr La Côte D'Ivoire au Soudan et a La Guinée" (Le Capitaine D'Ollone) ... 432
New English Province of Northern Nigeria, The ... 433
Scientific Work of Mount Weather Meteorological Research Observatory; by FRANK H. BIGELOW, of the United States Weather Bureau ... 442
Some Facts About Japan ... 446
Some Peculiar Features of Central African Geography; by S. P. VERNER ... 448
The Glaciers of Alaska ... 449
Government Assistance in Handling Forest Lands ... 450
Geographic Notes ... 452
Problems of the Far East ... 452

Page

Our Climate Helps Us ... 452
The Land of Earthquakes ... 452
Prosperity in Argentina ... 453
The Greatness of Our Country ... 454
Work for the Panama Canal ... 454
A Cablegram from Christiania ... 455
Emigration from Italy to the United States ... 455
Russia a Complete World in Herself ... 455
Maps of Manchuria ... 455
Geographic Literature ... 456
"Winter India" (Eliza Ruhama Scidmore) ... 456
"In the Uttermost East" (C. H. Hawes) ... 457
"South American Republics" (Thos. C. Dawson) ... 458
"The Kingdom of Siam" (edited by Cecil Carter) ... 458
"Japan by the Japanese" (edited by W. T. Stead) ... 459
"Early Western Travels, 1748–1846" (Reuben Gold Thwaites) ... 459
"Type Studies from United States Geography" (Chas. A. McMurry) ... 459
"Dodge's Advanced Geography" (Richard Elwood Dodge) ... 459
"Cyclones of the Far East" (José Algué) ... 459
"Round the World" (J. P. Thomson) ... 459
Recent Government Reports ... 459
Bureau of Forestry ... 459
"The Basket Willow" (Wm. F. Hubbard) ... 459
"Forest Planting in Western Kansas" (Royal S. Kellogg) ... 459
"Chestnut in Southern Maryland" (Raphael Zon) ... 459
United States Geological Survey ... 459
"The Tin Deposits of the York Region, Alaska" (Arthur J. Collier) ... 459
"A Gazetteer of West Virginia" (Henry Gannett) ... 459
"The Production of Natural Gas, 1903" (F. H. Oliphant) ... 459
"The Production of Petroleum, 1903" (F. H. Oliphant) ... 459
"Experiments on Schistosity and Slaty Cleavage" (George F. Becker) ... 459
"The Natural Features and Economic Development of the Sandusky, Maumee, Muskingum, and Miami Drainage Area in Ohio" (Benjamin H. Flynn and Margaret S. Flynn) ... 459
"The Passaic Flood of 1903" (Marshall Ora Leighton) ... 459
"The Passaic Flood of 1902" (George Buell Hollister and Marshall Ora Leighton) ... 459
"First Conference of Engineers of the Reclamation Service, with Accompanying papers (F. H. Newell) ... 459
"Hydrographical Manual of the U. S. Geological Survey" (Edw. C. Murphy, John C. Hoyt, and George B. Hollister) ... 459
"Water Resources of the Salinas Valley, California" (Homer Hamlin) ... 459
"Geology and Water Resources of Part of the James River, South Dakota" (J. E. Todd and C. M. Hall) ... 459
"Accuracy of Stream Measurements" (second enlarged edition) (Edward Charles Murphy) ... 459
"Destructive Floods in the United States in 1903" (E. C. Murphy) ... 459
"Contributions to the Hydrology of Eastern United States, 1903" (Myron L. Fuller) ... 459
"The Underground Waters of Gila Valley, Arizona" (Willis T. Lee) ... 459
"A Geological Reconnaissance Across the Bitter Root Range and Clearwater Mountains in Montana and Idaho" (Waldemar Lindgren) ... 459

Page

"Economic Resources of the Northern Black Hills" (J. D. Irving, with contributions by S. F. Emmons and T. A. Jaggar, Jr.) 459
"The Copper Deposits of the Encampment District of Wyoming" (Arthur C. Spencer) 459
"Zinc and Lead Deposits of Northern Arkansas" (George I. Adams, edited by Purdue and Burchard, with a section on the Determination and Correlation of Formations, E. O. Ulrich) 459
Geographic Congress Abstracts 460
Topographic Methods Used for the New Detail Maps of the Grand Canyon of the Colorado; by FRANCOIS E. MATTHES 460
Geography and History in the United States; by ALBERT PERRY BRIGHAM 460
A Comparative View of the Arctic and Antarctic; by FREDERICK A. COOK, M. D. 460
National Geographic Society, program for 1904–1905 461
China; by Hon. JOHN W. FOSTER, formerly Secretary of State 463
A Doubtful Island of the Pacific; by JAMES D. HAGUE 478
The United States Government Telegraph and Cable Lines 490
A Bird City 494
Sulphur Mine in Nevada 498
A Fossil Egg 499
The Wealth of Alaska 499
Chart of the World 500
John B. Hatcher 500
Laws Forbidding Pollution of Streams 500
Articles on the Far East 500
Decisions of U. S. Board on Geographic Names 501
Geographic Congress Abstracts 502
The Tower of Pelée; by ANGELO HEILPRIN 502
The Sculpture of Massive Rocks; by G. K. GILBERT 502
Gorges and Waterfalls of Central New York; by R. S. TARR 502
Mother Maps of the United States; by HENRY GANNETT 502
School Geography in the United States; by MARTHA KRUG GENTHE 502
The Relations of Commerce to Geography; by O. P. AUSTIN 503
The Submarine Great Canyon of the Hudson River; by J. W. SPENCER 503
Geographic Literature 504
"Manchuria. Its People, Resources, and History" (Alexander Hosie) 504
"Alaska" (Harriman Expedition Series. C. Hart Merriam) 506
"Italian Villas and their Gardens" (Edith Wharton) 506
"Dai Nippon" (Henry Dyer) 506
"Koreans at Home" (Constance Taylor) 506
"Japanese Life in Town and Country" (G. W. Knox) 506
Geographic Articles from Magazines, August-November 507
National Geographic Society 508

LIST OF ILLUSTRATIONS

	Page
Map showing award of Alaska Boundary Tribunal (12 x 12 inches)	Supplement
Map showing boundary in Portland canal	5
Map showing arid, semi-arid, and humid regions of the United States	16
Map showing mean annual rainfall in the United States	16
Map showing arid regions of the world	17
Map showing location of vacant public lands	18
Map showing location of forests and woodlands of the West	19
Map of irrigated and irrigable lands	20
Map showing approximate location and extent of open range in the United States	21
An abandoned house on an unirrigated plain	22
Top of Torrence Falls, Gunnison Canyon	23
Floating through Gunnison Channel, using a rubber bed as a raft	24
He floated, paddled and waded 400 miles down the stream, under the most delightful climate of the United States	25
Red Canyon of the Colorado River	26
The present water supply system of Phœnix, Arizona	27
Snow crystals	31–36
Marcus Baker, portrait	41
Sand dune overwhelming a forest, Cape Henry, Virginia	43
Sand dune overwhelming a house at Manatee, Michigan	44
Sand dune encroaching on railroad, near The Dalles, Oregon	45
Sand dunes controlled by a covering of sand hedges, on the Kurische Nehrung, northeastern Prussia	46
Diagram showing the average number of persons to a private family in each state and territory of the United States in 1900	51
Diagram showing the average number of persons in a family in the United States, 1850 to 1900	52
A mother kangaroo with a young kangaroo in her pocket	53
Japanese tea party	54
A wedding at Colon	59
Grinding grain, Panama	62
Low tide in the harbor of Panama	65
One of the hospital buildings on the hill back of Panama	66
A market scene in Panama	69
Cutting the canal through morasses, Chagres River region	71
The Culebra cut	72
Pile of beets by railroad track awaiting shipment, Minnesota Sugar Company, St Louis Park, Minn	80
Hoeing beets near Ames, Nebraska	81
An abandoned colony of flamingo nests, Bahama Islands	82
A sandstorm in the desert	85
In the heart of the painted desert	86
On the Nile, above Cairo	88
War map of Manchuria and Korea (36 x 42 inches)	Supplement
An Ilocano boy on one of the small and wiry Filipino ponies	92
Tagalog girl selling mangoes in Manila, Luzon	93
Boac, from the walled church	94

	Page
Igorrote packers on the road to Benguet	95
Tiruray dancers	96
Outskirts of Cotobato	97
An Igorrote	98
The house of the Gaddanes, near Iligan, Isabela, Luzón	99
A group of pigmy Negritos with two Americans of average size	100
Nipa house under construction	101
Nipa palm, from which roofs and sides of houses are made, Culion Island	102
Carabao in their native element	105
Moro dancing girls	106
Administration building, Harbin, October, 1903	115
School of commerce, Harbin, October, 1903	115
Russian church, Harbin	116
View of Russo-Chinese bank and railroad hotel in the distance, Harbin, October, 1903	116
River Sungari, Harbin	119
Completed section of Dalny, showing residences of railway officials	119
Business buildings in river town, Harbin	120
River Sungari, Harbin	123
Handling the 50-ton blocks for construction of piers, Dalny	124
Laying the 50-ton blocks for the piers, Dalny	124
Constructing a dry dock at Dalny	126
Map showing comparative size of Manchuria and Korea and the United States	127
Map of the Great Siberian railway	129
Outline map of scene of military operations in the Far East	129
Junks bringing timber to Niuchwang from the Yalu river	130
Chinese sawmill in Manchuria	130
Design for a Geological Survey flag	135
Boats used at Bagdad today; also used 3,000 years ago	Frontispiece
The house of a wealthy date merchant	140
A group of Mohammedans on a pilgrimage to Berbela	141
Returning to the steamer at Jask	141
Raft made of the leaves of the date palm	141
Three Brahmins on the "Pemba"	142
Raft made of date-palm leaves in the water	142
Mohammedan women of Bagdad	142
The falcon of an Arab sheik	142
A canal scene—Busra	144
In the suburbs of Bagdad, showing the mud houses and date palms	145
The harbor of Muscat	146
On the Tigris in early morning	146
The skin water bag of the traveler in the interior	146
Women filling their water bags in the Tigris—Bagdad	147
A slave boy	149
A date merchant at Busra	149
A mosque in Bagdad	149
A veiled woman of Muscat	149
Women at worship in a church—Bagdad	150
Saguaro, or giant cactus, near Tucson, Arizona	152
The yucca in the Tularosa desert, New Mexico	154
The yucca growing up through a dune 50 feet high	155

Page

Sand column in the white sands, New Mexico, caused by the protection afforded by the three-leaved sumac growing over it 156
Vegetation of the Sonora Desert, near Torres, Mexico 157
Papago Indian obtaining drinking water from a barrel cactus west of Torres, Mexico ... 158
Group of palms in the Colorado desert, California 161
Map showing location of and annual precipitation at certain stations in the arid region of western America 162
Menelik, King of Ethiopia, awaiting the arrival of United States Commissioner Skinner in the Aderach or imperial parlor 164
Map showing winds, calms, and sailing routes, May–October 172
Map showing calms and sailing routes, November–April 173
The Gardiner Greene Hubbard Memorial Hall 177
View of marble entrance hallway 178
The library and meeting hall 179
The fireplace, carved in Indiana sandstone 180
Another view of the library and meeting hall 181
Ten thousand acres of wokas or waterlilies—Indian dugouts used for gathering the wokas pods 182
A pile of wokas pods drying in the sun—Several winnowing trays and buckets are shown. 183
Crushing the dried wokas pods to obtain the seeds 184
Map of Alaska, 36 by 42 inches ..... Supplement
Dragging the surface and dip nets from the *Albatross* 193
Picture of the highest mountain in the world set in the greatest ocean depth 195
Cascades in Litnik stream—Afoguak Island, Alaska 196
A salmon ascending the cascades of Litnik stream 197
Salmon trap belonging to Alaska Packers' Association, Nushagok River 198
Removing blubber from a whale beached on California coast 200
School of blackfish stranded on the shore of Cape Cod, Massachusetts 201
Drying skates for manufacture into fertilizer, opposite Provincetown, Massachusetts 202
Discharging menhaden from vessel by means of tubs 204
Spongers at work 205
The sponge fleet and the sponge auction wharf at Key West 206
Tables showing yield and value of fisheries 210, 211
A well-kept forest of timber bamboo 223
The rapidity of growth of bamboo shown 224
Group of monkeys representing a favorite maxim of the Japanese 225
A field of vetch, showing the effect of inoculation 226
Tubercles of velvet bean produced by inoculation 227
An abandoned monastery in Ladakh 228
Another view of the monastery at Ladakh 229
A group of lamas, Ladakh 230
Hon. Charles D. Walcott 235
Women's ward, leper hospital, San Lazaro, Philippines 241
Igorrote village and terraces for rice planting 242
Teosinte ready for fifth cutting 245
Vinta or Moro sailing boat, with Samal man 246
Rice paddies 249
Inhabited cascos lying in the Pasig river 250
A cocoanut raft from Laguna in one of the esteros of Manila 253
Moros carrying a wood sample 255

	Page
Map of Arctic regions, showing outline of indicated North Polar land	256
Insular normal school—Girls' dormitory	275
Ibilao hunter in rain coat and hat of deer hide, mountains of Eastern Nueva Vizcaya	277
Sulu Moro man, coarse type	278
Bontok Igorrote with elaborate tattooing of the head-hunter	281
Subanon woman, showing native skirt or "tapis" woven of hemp	282
Cirrus clouds	286
Cirrus merging into cirro-stratus clouds	286
Fair weather cumulus clouds	288
Cirro-cumulus clouds	288
Cumulus clouds	290
Near view of large cumulus clouds	290
Weather map, showing typical winter storm	291
Potola, the palace of the Grand Lama, Lhassa	293
Mountains on southeast side of Lake Clark	327
Natives of Keeghik village, Lake Clark	329
Sketch map of Lake Clark and vicinity	330
At San Luis Potosi—A street crowd watching a photographer	342
Loading outfit on pack mules	343
Boat on Lake Chapala with a square sail and thatched roof over stern	344
Indian woman spinning with spindle, Lake Chapala	345
An Indian woman weaving with a primitive hand loom, Lake Chapala	346
Tarascan house, Cirosto, Michoacan	347
Collared peccary, Guerrero	348
Papayo, a characteristic hot country village in Guerrero	349
Women—half Negro, half Indian—going after palm nuts, Papayo	350
Fig-tree coiled on nut palm	351
Round hut of Negros, south of Acapulca, Guerrero	352
Curious species of agave growing on cliffs	353
Moated corn-crib, near Cuernavaca	354
Lizard carved in relief on rock, prehistoric, Cuernavaca	356
The Augusta natural bridge	368
The little bridge	368
Turtle mountain and the great rock-slide at Frank, Alta	372
Map showing central part of Washington, D. C	375
Some of the members of the Eighth International Geographic Congress	421
A group of the Eighth International Geographic Congress	422
View of Kano from the Dallah Hill	435
A Kano gate	435
The Emir of Kano's palace	436
Interior of native Emir's palace	436
Exterior of the Emir of Kano's harem	439
Ceiling of the Emir of Kano's audience chamber	439
View inside Zaria	440
Wall of Emir of Kano's compound	440
View of the Niger from Jebba	441
Map showing the Russian, British, and German concessions in North China	469
Map showing the French and British concessions in South China	470
Map showing the relative positions of the Doubtful Islands region, the Hawaiian Islands, and the American coast	479

Page

Map showing tracks of U. S. ship *Tacoma* and other vessels through Doubtful Islands region 481
Sketch of mast of U. S. sloop *Levant* washed ashore on Hawaiian Islands 487
Relief map of Alaska, showing telegraph and cable lines of the U. S. Signal Corps 491
Relief map of rhe Philippine Islands, prepared by U. S. Signal Corps 492
Relief map of Porto Rico, showing telegraph lines constructed by U. S. Signal Corps 493
Collecting albatross eggs on Laysan Island 495
Albatrosses on Laysan Island 496
The first step in the favorite dance and song of the albatross 497
The second step in the dance 497
The finale or duet 497
A more common ending to the dance 497

WASHINGTON, D. C.
PRESS OF JUDD & DETWEILER
1904